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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/806,380

03/23/2004

Dong-gyun Ra

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1827

32605 7590 03/09/2007  
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EXAMINER

CHOWDHURY, AFROZA Y

ART UNIT

PAPER NUMBER

2609

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/09/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/806,380

Applicant(s)

RA, DONG-GYUN

Examiner

Afroza Y. Chowdhury

Art Unit

2609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1 (lines 4-6) and claim 4 (lines 11-14), "An inverter control unit for selectively outputting the timing signal received from the timing controller according to the control signal from the mode setting unit" is not clear. For inverter control unit to output a timing signal, it must receive signal from a timing control. How is it possible to receive the timing signal from a mode setting unit?

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1–8, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee et al. (US 2002/0057247).

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As to claim 1, 4, and 8, Lee et al. discloses a liquid crystal display device, comprising: a liquid crystal module including a liquid crystal panel, a gate driving unit (fig. 3(200)) for delivering scanning signals to the liquid crystal panel, and a data driving unit [fig. 3(300)] for delivering image signals to the liquid crystal panel;

a timing controller (fig. 6(100)) for providing the image signals input from the outside and a timing signal used to control display of the liquid crystal module (page 4, [0099] – [0100], page 5, [0121] – [0122]);

a mode setting unit (fig. 6(400, 520)) for outputting a control signal according to a selected display mode (page 1, [0020], pages 4-5, [0100] – [0102], [0105]);

an inverter control unit (fig. 6(510)) for selectively outputting the timing signal received from the timing controller according to the control signal from the mode setting unit;

an inverter (fig. 6(700)) which is operated in either synchronous mode or asynchronous mode in response to the selectively output timing signal (fig. 4, pages 4-5, [0104] – [0105]);

and a lamp (fig. 6(800)) which is operated at a relevant frequency according to the operation mode of the inverter (fig. 3, page 5, [0105] – [0107]).

As to claims 2, 5, and 12, Lee et al. teaches a liquid crystal display device wherein the timing signal is a gate select signal or data clock signal (fig. 3, page 4, [0093], [0096] – [0097]).

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As to claims 3, 6, and 13, Lee et al. discloses a liquid crystal display device wherein the timing signal is a vertical or horizontal synchronous signal (fig. 4, pages 4-5, [0104] – [0105]).

As to claim 7, Lee et al. teaches a liquid crystal display device wherein the mode setting unit is included in the timing controller (page 1, [0020], pages 4-5, [0100] – [0102], [0105]).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9–12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 2002/0057247) in view of Park (US 20020130830).

As to claim 9, Lee et al. teaches a liquid crystal display device with an OCD (Optical Compensated Birefringency) mode (page 3, [0097]). He did not teach moving image or still image mode. Park discloses LCD having a driving method of moving picture and still-image mode (page 1, [0010] – [0011], page 5, [0077] – [0078]). Therefore, it would be obvious to combine Park's method with the invention of Lee et al.

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to adapt a method wherein the display mode is either moving-image or still-image mode.

As to claim 10, Park teaches a method wherein the steps of outputting a first level control signal when the display mode is the moving-image mode, or outputting a second level control signal when the display mode is the still-image mode (page 4, [0070] – [0071], page 5, [0077] – [0078]).

As to claim 11, Park discloses a method wherein the steps of outputting the timing signal received from the outside when the second level control signal is applied, or not outputting the timing signal received from the outside when the second level control signal is applied (page 5, [0077] – [0078], [0080]).

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Afroza Y. Chowdhury whose telephone number is 571-270-1543. The examiner can normally be reached on 7:30-5:00 EST, 5/4/9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571-272-2600. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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AMARE MENGISTU  
SUPERVISORY PATENT EXAMINER